## NASA Excellence Award for Quality and Productivity



# Application Guidelines 1988-89

Administered by

American Society for Quality Control

## **Table of Contents**

	Message from the Administrator	2
	Preface	3
I.	Introduction	4
II.	Award Categories	4
III.	Candidate Eligibility and Nomination	4
IV.	Selection Process	5
V.	Recognition of Award	7
VI.	Evaluation Criteria Elements	7
	Appendix A-1—Candidate Nomination Letter	14
	Appendix A-2—Nomination Questionnaire Form	15
	Appendix B—Preparation of Application Report	16
	Appendix C—Milestone Schedule	17

### Message from the Administrator

The NASA Excellence Award for Quality and Productivity is designed to recognize the highest standards of performance among NASA's aerospace industry contractors, subcontractors, and suppliers. Recipients of the award are those organizations that continually demonstrate ways to maintain and improve the quality of their products and services.

The award, however, is not an end unto itself. Senior management attitudes and a commitment to quality influence organizational effectiveness. Leadership in the development and application of practices which contribute to high quality and productivity is NASA's top priority.

We believe this award communicates to industry the kind of organization with which NASA wants to do business. The Agency realizes that among its contractors are a number of outstanding companies that excel in the various areas of quality and productivity improvement. Both NASA and the contractors who have participated in the award program have benefited from the process. It is NASA's belief that, with continuous refinement of the eligibility criteria each year, more of its contractors will participate in this, the Agency's highest award program for quality and productivity.

To enhance the program, we have created three categories this year: Hardware; Service, Software, and Support; and Small Business.

We are also considering involvement with contractor teaming for future eligibility.

Quality enhancement is a precursor to productivity improvement. To continue to be successful, we must give the best that is in us. If we do, the vision, skill, and technology that have been our trademark will continue to lead us toward greater achievements in the future.

James C. Fletcher Administrator

#### **Preface**

The NASA Excellence Award was established to encourage superior quality and productivity in the aerospace industry. The award recognizes outstanding achievements in quality and productivity, and the award process itself provides a learning environment for organizations desiring to improve.

One of the most critical elements of any organization's quality and productivity effort is their focus on customers' expectations. Increased quality and productivity result in greater customer satisfaction, which in turn enhances an organization's competitive position. Since customers determine the value of an organization's product or service, two-way communication is of paramount importance.

For NASA and the aerospace community to maintain our position as leaders in quality and productivity, we must renew our commitment to quality as an integral part of our organizational culture. As an applicant for the Excellence Award, you are making an important contribution to enhancing the aerospace industry's ability to respond to our collective needs.

George A. Rodney Associate Administrator for Safety, Reliability, Maintainability, and Quality Assurance

#### I. Introduction

The NASA Excellence Award for Quality and Productivity is awarded to current NASA contractors, subcontractors, and suppliers in the aerospace industry who have demonstrated sustained excellence and outstanding achievements in quality and productivity. The objectives of this award are to:

- increase public awareness of the importance of quality and productivity to the nation's aerospace program and industry in general;
- encourage domestic business to continue efforts to enhance quality, increase productivity, and thereby strengthen competitiveness;
- provide the means for sharing the successful methods and techniques used by the applicants with other American enterprises.

#### II. Award Categories

The following categories have been identified for separate consideration:

- Hardware supplier
- Software, service, or mission support supplier
- Small business in either of the above categories

Small business is defined as:

- Independently owned and operated
- 25-500 employees
- Not affiliated with a larger corporation

Multiple awards may be given in each category if there are applicants that qualify and meet the standards of excellence as evaluated.

#### III. Candidate Eligibility and Nomination

Prime contractors, subcontractors, and suppliers providing hardware, software, support services, and mission processing having an average yearly sales to NASA of at least \$500,000 (\$200,000 for small business) or 50% of their total business on NASA contract(s) are eligible to apply for the award.

In addition, a candidate must achieve a high level of customer satisfaction and have sustained excellence and outstanding achievements in quality and productivity for a minimum of three years prior to the date of submission of an application.

A candidate must be located in the United States and have a minimum of 75 employees (except small business candidates). All employees need not be engaged in work on NASA contracts. In the case of a corporation, it is not the entire corporation but the facility/organization with the NASA contract that should be nominated for the award. A candidate must self-nominate through the format and specifications stated in Appendices A-1 and A-2, and with a letter signed by the highest ranking member of management.

The nomination information must be mailed to:

American Society for Quality Control NASA Excellence Award for Quality and Productivity 310 West Wisconsin Avenue Milwaukee, Wisconsin 53203

#### **IV. Selection Process**

There are five stages in the selection process (see Appendix C for the Award Process Milestone Schedule). Three major groups are involved:

Stage	Group
1.0 Candidate Eligibility	Evaluation Committee
2.0 Application Report	Evaluation Committee
3.0 Finalists Selection	Evaluation Committee
4.0 Finalists On-Site Validation	Validation Team
5.0 Award Recipient Selection	NASA Productivity Steering Committee
6.0 Award Presentation	NASA Administrator

#### **Evaluation Committee Membership**

- Headquarters Representatives
- Field Center Representatives
- American Society for Quality Control Representatives
- Government/Industry/Academic Advisors

#### Validation Team

• Selected members of the Evaluation Committee and other representatives.

#### **NASA Productivity Steering Committee Membership**

- Administrator (Chairperson)
- Deputy Administrator
- Associate Deputy Administrator
- Associate Deputy Administrator (Institution)
- Assistant Deputy Administrator
- Associate Administrator for Safety, Reliability, Maintainability and Quality Assurance
- Assistant Administrator for Procurement
- Comptroller
- Assistant Administrator for Commercial Programs
- Assistant Administrator for Headquarters Operations
- General Counsel
- Director of Small and Disadvantaged Business Utilization
- Associate Administrator for Communications
- Chief Scientist
- Assistant Administrator for Equal Opportunity Programs
- Inspector General
- Associate Administrator for External Relations
- Associate Administrator for Exploration
- Associate Administrator for Space Science and Applications
- Associate Administrator for Aeronautics and Space Technology
- Associate Administrator for Space Flight
- Associate Administrator for Space Tracking and Data Systems
- Associate Administrator for Management
- Associate Administrator for Space Station
- Director, Ames Research Center
- Director, Goddard Space Flight Center
- Director, Johnson Space Center
- Director, Kennedy Space Center
- Director, Langley Research Center
- Director, Lewis Research Center
- Director, Marshall Space Flight Center
- Director, Stennis Space Center

#### 1.0 Candidate Eligibility

The Evaluation Committee will conduct a review of the information in the candidate nomination letter (Appendices A-1 & A-2) to evaluate compliance with the eligibility requirements and the candidate's statement of reason for award consideration. Verification will be accomplished through the candidate's contracting NASA field installation or prime contractor(s), where applicable. Only candidates that meet or exceed the high standards of this award and satisfy the requirements of customer satisfaction in all areas of performance, schedule, and cost will be asked to submit an Application Report.

#### 2.0 Application Report

Candidates that have been verified as eligible applicants by the Evaluation Committee will be requested to submit an Application Report (Appendix B).

In the Application Report, applicants must address the evaluation criteria elements contained in this publication. If an applicant considers a criteria element not applicable, "not applicable" must be written and reasons for deletion of the element(s) must be stated. If evaluators concur that a criteria element is "not applicable," those points will be subtracted from the total assigned points. The final score will be expressed as a percentage of the total points awarded versus the total available points.

The Evaluation Committee, with the assistance of the applicant's contracting NASA field installation(s) and/or prime contractor(s), will review the Application Report to determine if the applicant's stated accomplishments meet the standards for this award.

#### 3.0 Finalists Selection

Based on the results of the Application Report review by the Evaluation Committee, applicants who have demonstrated superior performance in quality and productivity will be selected for recognition as finalists in the award process.

#### 4.0 Finalists On-Site Validation

An on-site validation agenda will be provided to the finalist no fewer than 10 working days prior to the Validation Team's visit. The agenda will include a scheduled sequence of activities, an estimate of time required for the on-site validation, the names of the members of the Validation Team, and the name of the designated team leader.

The number of team members and the time required for validation will vary depending on the number and complexity of items being reviewed. The visit will be no longer than two days.

A Findings Report will be developed by the Validation Team for submission to the Evaluation Committee. It may be necessary, during the validation visit, for the applicant to provide the team with supporting data that will be included in this Report. No material can be forwarded for consideration after the validation visit is completed. Based on input from the Findings Report and discussion with the Validation Team Members, the Evaluation Committee will make recommendations to the Productivity Steering Committee.

#### 5.0 Award Recipient Selection

There is no limit to the number of finalists that can be selected as award recipients. Selection of the annual award recipient(s) will be made by the NASA Productivity Steering Committee based on their review of the Findings Report and the recommendations of the Evaluation Committee. All finalists selected as award recipients will be notified simultaneously by certified mail. (All decisions of the NASA Productivity Steering Committee are final. Award recipients will be eligible to apply for another award four years after the initial application.)

#### **Debriefings**

All applicants may request a debriefing. The debriefing will be scheduled as soon as practical after the announcement of award recipients. The time allotted will be determined by NASA.

#### V. Recognition and Award

#### 1.0 Excellence Award Recipients

#### 1.1 Recognition

The receipt of this prestigious award carries with it the recognition by NASA that the award recipient has demonstrated sustained excellence and outstanding achievements in quality and productivity in the aerospace industry. The award recognizes that recipient(s) not only meet contract requirements, but go further: they provide products/services at such a high quality level that, in some instances, they set new levels of customer expectation.

#### 1.2 Awards

A plaque engraved with the award recipient's name and the year of award will be presented to each recipient. In addition, the recipient will receive a quality and productivity award flag and lapel pins for each employee at the facility. Presentation of the award will be made by the NASA Administrator in a special ceremony held at the recipient's location. The company representative receiving the award should be the highest ranking member of management at the recipient's facility. The achievements of the award recipient(s) and their outstanding systems and methods will be publicized through:

- A publication entitled Highlights of Excellence
- An announcement of the award recipient(s) in NASA Tech Briefs
- An article featured in the American Society for Quality Control's (ASQC) monthly journal, *Quality Progress*
- Participation in ASQC and NASA conferences
- Award posters
- Press releases

#### 2.0 Excellence Award Finalists

#### 2.1 Recognition

Applicants that reach the level of award finalists are recognized by NASA as companies that have demonstrated superior achievements in quality and productivity.

#### 2.2 Award

All finalists will receive a plaque engraved with the finalist's name and the year of award. This plaque will be presented to the finalist's highest ranking officer by the NASA Administrator at a special ceremony held at NASA Headquarters in Washington, D.C. In addition, ASQC will recognize finalists at its Annual Quality Congress.

#### VI. Evaluation Criteria Elements

The evaluation criteria elements used to measure applicant performance and progress are given in the summary chart. Guidelines used by the Evaluation Committee in rating the criteria elements for each Application Report are provided. Applicants are encouraged to address each criteria element applicable to their contract and to emphasize unique or innovative approaches used to enhance quality or productivity. If a criteria element does not apply, it must be addressed by indicating "not applicable" and reasons must be stated. When a criteria element is "not applicable," those points will be subtracted from the total assigned points. The final score will be expressed as a percentage of the total points awarded versus the total available points.

Each applicant must achieve a high level of customer satisfaction to be eligible for award nomination. Applicants that do not achieve a rating equivalent to 80% of the allocated points for customer satisfaction may be disqualified from further consideration in the evaluation process.

The Criteria Elements used to evaluate Application Reports are identical for all types of contract activity, with the exception of the quality assurance criteria element. This element is separated into three categories: hardware, software, and support services/mission processing. It is recognized that some applicants have activities in more than one of these categories. Applicants are encouraged to address each of the quality assurance criteria elements which are representative of the primary contract activities.

## Summary of Evaluation Criteria for NASA Excellence Award for Quality and Productivity

<b>Evaluation Criteria Elements</b>		otal Points Possible	
1.0 Performance Achievements and Improvements		600	
1.1 Customer Satisfaction	(250)		
1.1.1 Performance       [170         1.1.2 Schedule       [40         1.1.3 Cost       [40	j		
1.2 Quality and Productivity	(350)		
1.2.1 Quality       [ 40         1.2.1.2 Problem resolution       [ 40         1.2.1.3 Quality assurance of       [ 100	]		
A. Hardware B. Software C. Support services/mission processing			
1.2.1.4 Efficient use of manpower			
1.2.2 Productivity Levels or Trends			
1.2.2.1 Software utilization, automation, artificial intelligence[ 25]1.2.2.2 Process improvement and equipment modernization[ 20]1.2.2.3 Energy conservation[ 20]1.2.2.4 Health and safety[ 25]	 		
2.0 PIQE Process Attainments		400	
2.1 Top Management Commitment and Involvement[100]2.2 PIQE Goals, Plans, Measures, and Dissemination[100]2.3 Open Communication[40]2.4 Training[40]2.5 Work Force Involvement[40]2.6 Award/Reward Recognition[40]2.7 Involvement of Subcontractors[40]			
Total Points		1000	

#### 1.0 Performance Achievements and Improvements

1.1 Customer Satisfaction—emphasis in this element is on measurable and verifiable satisfaction by NASA, or a prime contractor in the case of subcontracted work, for overall organizational performance.

#### 1.1.1 Performance

- 1.1.1.1 Performance requirements are clearly understood and communicated throughout the organization.
- 1.1.1.2 Performance is outstanding in essentially all areas of activity.
- 1.1.1.3 Areas of deficiency are few and are considered relatively unimportant.
- 1.1.1.4 Applicant demonstrates a high degree of initiative in executing tasks and implementing improvements to facilitate and enhance work force performance.

#### 1.1.2 Schedule

- 1.1.2.1 Schedule requirements are clearly defined, and activities are planned to ensure meeting or exceeding contract requirements.
- 1.1.2.2 Applicant has a documented scheduling system that analyzes schedule performance over the life of the contract and verifies that schedule requirements were met or exceeded.
- 1.1.2.3 Applicant demonstrates exceptional responsiveness to rescheduling, workarounds, and reprioritized work activities.

#### 1.1.3 Cost

- 1.1.3.1 Actual costs are at or below the estimated contract cost.
- 1.1.3.2 Applicant demonstrates accurate and consistent ability to forecast costs.
- 1.1.3.3 Customer is advised of pending cost changes or cost concerns in a timely
- 1.1.3.4 Cost reduction/avoidance programs have resulted in significant savings.
- 1.1.3.5 Subcontractor costs are under control.
- 1.2 Quality and Productivity—emphasis in this element is on measurable and/or verifiable accomplishments in quality and productivity.

#### 1.2.1 Quality

- 1.2.1.1 Reporting and communications—actions that give documented evidence of the applicant's excellent reporting and communications process.
  - (a) Responsiveness to inquiry.
  - (b) Openness and objectivity.
  - (c) Accuracy and timeliness.
  - (d) Clear, concise, and factual information frequently exchanged.

#### 1.2.1.2 Problem resolution

- (a) Evaluate example(s) of how a major problem would be identified, resolved, and communicated to the customer and evaluate the extent to which this activity involves management at appropriate levels in the applicant's organization.
- (b) Evidence that the applicant perceives and notifies the customer of existing or potential problems in a timely manner.
- (c) How lessons learned from problems or other unsatisfactory conditions are applied and made effective.

- (d) Evidence that through the applicant's ingenuity, effective solutions to problems were developed and implemented, resulting in a savings of time, money, manpower, or improvements in products or service.
- (e) Evidence that the applicant was thorough in documenting problems and their resolution with careful attention to determine if the solutions would:
  - prevent problem recurrence.
  - have beneficial or deleterious side effects.
  - adversely affect other tasks.

#### 1.2.1.3A Quality Assurance—Hardware Contracts

- (a) Design, planning, and development yield correct form, fit, and function with a minimum of significant engineering changes during assembly and integration.
  - Minimum planning errors.
  - Minimum design and engineering errors.
- (b) Nonconformance number and trend improvement information.
  - Minimum number of nonconformances during manufacturing, assembly, and test.
  - Low rework rate.
  - Low percentage of scrap.
  - Low number and backlog of Material Review Board actions.
  - Production documentation is updated to reflect latest engineering changes with minimum number of unincorporated changes.
- (c) Evidence of in-process quality control to establish high quality rather than undue dependence on end-of-process inspection.
  - Evidence of formal process control.
  - Effective use of statistical in-process controls.
  - Use of the in-process trend data to assist in the improvement process.
  - Identification of critical in-process inspection.
  - Process control feedback to operator.
  - Effective use of automated processes.
  - Demonstration that contractor is seeking to prevent errors rather than to detect errors; evidence of continuous improvement.
- (d) Evidence of an effective and documented audit program.

#### 1.2.1.3B Quality Assurance—Software Contracts

- (a) Minimum planning errors.
- (b) Minimum design and engineering errors.
- (c) Minimum number of nonconformances, i.e., errors per 1000 lines of delivered code during development and integration testing.
- (d) Low number of error corrections required during integration testing.
- (e) Trend data for nonconformances, errors, and changes indicate significant reduction commensurate with program maturity.
- (f) Evidence of formal process control.
- (g) Effective use of reliability models.
- (h) Effective use of software library.
- (i) Effective use of regression testing.
- (j) Effective use of automated processes.
- (k) Effective use of automated testing.
- (l) Software configuration control implemented early in the planning/development phase.
- (m) Effective software security measures.
- (n) Use of independent verification to validate that the software is error free.
- (o) Software life cycle phases and associated products and activities are identified.
- (p) Evidence of an effective and documented audit program.

- 1.2.1.3C Quality Assurance—Support Services/Mission Processing Contracts
  - (a) Applicant has systems/procedures in place to prevent or avoid the occurrence of problems, discrepancies, or other unsatisfactory conditions.
  - (b) Applicant maintains a documented and operational technical system to collect data and monitor the process to assess and correct conditions that could degrade the quality of the product/service. The applicant also uses the system to improve services, in pursuit of continuous improvement.
  - (c) Services provided are free of defects, discrepancies, or other unsatisfactory conditions.
  - (d) Inspectable services involved with manufacture and maintenance are essentially free of nonconformances.
  - (e) Services are formally tracked by management to ensure a thorough, accurate, and timely completion.
  - (f) Contractor uses trend data to improve services/processing activities.
  - (g) Procedural type tasks/operations are well documented in approved, updated procedures or checklists.

#### 1.2.1.4 Efficient use of manpower

(a) Applicant demonstrates effective and economic use of manpower by assigning qualified personnel with appropriate skill levels and skill mixes to perform tasks.

#### 1.2.1.5 Subcontractor quality

- (a) Positive trend data on quality, schedule, and cost of received products/services.
- (b) Effective use of a subcontractor rating system that identifies optimum sources for procured products/services and provides feedback to correct deficiencies
- (c) Functional audit/survey system with scheduled visits.
- (d) Effective problem analysis and corrective action are performed.

#### 1.2.2 Productivity Levels or Trends

- 1.2.2.1 Software utilization, automation, artificial intelligence—effective use of computerized information/data handling systems such as word processors, computer terminals, computer graphics, interactive terminals, automated testing, calibration, BAR code inventory control, inspection, parts handling, planning/scheduling, etc.
- 1.2.2.2 Equipment modernization—modernization and upgrade of equipment and facilities to improve efficiency and quality of services. Changes to the process yield documented improvements in cycle time, manhours, etc.; contractor demonstrates initiatives to define and establish the requirements for new or modified government equipment systems or facilities to improve services and functional support.
- 1.2.2.3 Energy conservation—implementation of an energy management or conservation program with established objectives to effectively utilize systems or equipment in respect to energy availability, or if applicable, result in energy use reduction.

#### 1.2.2.4 Health and safety

- (a) An effective health and safety program, staffed by qualified personnel is implemented.
- (b) Lost time injuries and equipment loss/damage are effectively eliminated or significantly reduced as shown by documented trend data.
- (c) Effective safety training is provided to personnel on a scheduled basis.
- (d) Safety audits/surveys are periodically performed, and effective corrective actions are implemented in a timely manner to correct deficiencies.

#### 2.0 Productivity Improvement and Quality Enhancement (PIQE) Process Attainments

- 2.1 Top Management Commitment and Involvement—documented evidence of top management commitment, review, and involvement.
  - 2.1.1 Long-term commitment stated and in practice.
  - 2.1.2 PIQE programs reviewed (yearly, quarterly, monthly, and by whom).
  - 2.1.3 Support through commitment of capital.
  - 2.1.4 Support through commitment of human resources.
  - 2.1.5 Innovative approaches.
- 2.2 PIQE Goals, Plans, Measures, and Dissemination—use of trending of meaningful goals, plans, schedules, performance measures, management reviews, and feedback mechanisms, institutionalized throughout the organization to support a mature PIQE program.
  - 2.2.1 Program goals and objectives are stated.
  - 2.2.2 Program has a long-range plan.
  - 2.2.3 Program(s) are described and promulgated.
  - 2.2.4 Program actual progress versus planned progress is tracked.
  - 2.2.5 Methods by which programs are disseminated to employees.
  - 2.2.6 Number of employees and skill levels reached by various dissemination methods.
  - 2.2.7 Performance measurements developed and feedback to employee/department.
  - 2.2.8 PIQE goals related to employee performance appraisal process.
- 2.3 **Open Communication**—demonstrated policy of open communication, vertically and horizontally, top-down and bottom-up, within the organization to build understanding, commitment, and common direction.
  - 2.3.1 Policy is documented.
  - 2.3.2 Policy is demonstrated (open door policy, information access/sharing, one-on-one employee supervisor meeting).
  - 2.3.3 Results of employee "climate," "attitude," surveys, etc., that indicate perceived environment of open communication.
- 2.4 **Training**—degree of participation in initial, advanced, and refresher training and education in such areas as job skills, management skills, statistical control, group process, problem solving, career counseling, personal development, and other efforts that would lead to improving potential of employees for greater work responsibilities and personal growth.
  - 2.4.1 Job skills training (number of courses given, people trained, contact hours, etc.).
  - 2.4.2 Management/supervisory skills (number of courses given, people trained, contact hours, etc.).
  - 2.4.3 Group process, problem identification, and solution training.
  - 2.4.4 Information/orientation for new employees on the PIQE program.
  - 2.4.5 Improvement techniques including, but not limited to, flowcharting, statistical process control (SPC), etc.
  - 2.4.6 Extent to which employees participate in the educational reimbursement program.
  - 2.4.7 Career counseling/personal development.

- 2.5 Work Force Involvement—participation of individuals or groups (i.e., teams, circles, etc.) in building dedication, pride, and teamwork through submitting innovative ideas; verifiable cost reduction/avoidance activities; and improving the quality and productivity of systems, processes, methods, and products/services.
  - 2.5.1 Structured, autonomous work groups, quality circles, quality/productivity teams, etc., have been formed and meet frequently to study, measure, and improve organization, systems, processes, procedures, and products. These groups encourage pride, dedication, and teamwork.
  - 2.5.2 Percentage of total work force participating (broken down into appropriate organization subelements, e.g., salaried, nonsalaried, etc.).
  - 2.5.3 PIQE projects are implemented (number and contributions to quality and productivity).
  - 2.5.4 Diversity of employee involvement activities.
  - 2.5.5 Formulation of specialist teams across organizational boundaries.
  - 2.5.6 Suggestion systems, cost reduction/avoidance programs.
  - 2.5.7 Patents issued.
- 2.6 Award/Reward Recognition—evidence of techniques and their success in making innovation and improvements rewarding, e.g., gainsharing, bonus, awarding merchandise, and/or other methods.
  - 2.6.1 Work groups (% of total work force).
  - 2.6.2 Employees (% of total work force).
  - 2.6.3 Management (% of total management).
  - 2.6.4 Based on meaningful organization performance measures, i.e., by department, subdepartment, work groups, individuals.
  - 2.6.5 Recognition of PIQE improvements and achievements.
  - 2.6.6 Provide meaningful, tangible awards/rewards (e.g., gainsharing, profit sharing, bonus, merchandise, plaques, etc.).
  - 2.6.7 Variations in degree based on degree of improvement and achievement.
  - 2.6.8 Frequency of awards and recognition.
- 2.7 Involvement of Subcontractors—active involvement in PIQE programs of subcontractors, with evidence of treatment as a "team" member.
  - 2.7.1 Number of subcontractors to which PIQE programs were presented.
  - 2.7.2 Percentage of total subcontractors to whom programs were presented.
  - 2.7.3 Assistance provided to subcontractors in implementing a PIQE program.
  - 2.7.4 Information sharing with subcontractors.
  - 2.7.5 Recognition, award/reward, and other performance incentive programs.
  - 2.7.6 Improvement training programs.
  - 2.7.7 Measurement, goal setting, and feedback programs for subcontractors.
  - 2.7.8 Cost savings programs.

## Appendix A-1 Candidate Nomination Letter

#### I. General Instructions

Each candidate is encouraged to submit appropriate information to permit verification by the Evaluation Committee. Written comments should be concise, specific, and address the attributes and philosophies that qualify the applicant for consideration. Thirty (30) copies shall be submitted to ASQC.

#### II. Specifications

- Pages must be standard size (8-1/2 by 11 inch)
- Printing must be standard elite type or equivalent
- Total length shall not exceed eight (8) pages (including basic information, compliance data, questionnaire, and summary comments)

#### III. Format

Reports shall contain the following sections:

- 1.0 Applicant basic information
  - 1.1 Name and address of nominee (facility location applying)
  - 1.2 Name, title, and telephone number of the highest ranking member of management at that facility
  - 1.3 Name, title, and telephone number of the award program contact
  - 1.4 Product/service furnished on all NASA contracts
- 2.0 Eligibility compliance
  - 2.1 The number of full-time employees at the facility location, and number of these personnel engaged in NASA activities
  - 2.2 List NASA contract(s) and amounts billed per year (by number) for the last three years, subcontractors list prime contractor and purchase order numbers and amounts
  - 2.3 A summary of award fee ratings or other performance indicators for the last three years
- 3.0 Nomination questionnaire (Appendix A-2)

All questions must be answered. If a question is marked "N/A" (not applicable), the nominee may subsequently need to demonstrate why these activities do not relate to the operation.

#### 4.0 Reason for award consideration

The nominee should summarize accomplishments and justification for being considered for the award. Instances of sustained excellence and outstanding achievements in quality and productivity should be cited using the evaluation criteria as a frame of reference for a minimum of three years prior to the date of submission. (Five page maximum)

## **Appendix A-2 Nomination Questionnaire Form**

Yes	No	N/A	
			Do all of the performance ratings exceed 80% for 1986-1988?
			Is there a scheduling system or process that analyzes performance and verifies requirements?
			Are actual costs at or below contract levels?
			Is there an active cost reduction/avoidance program?
			Is the quality reporting system clear, concise, accurate, responsive, and timely?
			Is a formal hardware, software, or service process control system in place?
			Is there a documented audit program for quality assurance?
			Is a subcontractor rating system used where applicable?
			Is there a facility/equipment modernization plan?
			Is there an energy conservation program in place with documented savings?
			Does the health and safety program include a wellness focus and safety training?
			Is the commitment of top management to quality and productivity documented and demonstrated?
			Is there a system used for tracking and disseminating quality and productivity goals and performance?
			Is commitment to open communication documented and demonstrated?
			Do training efforts include job and management skills, career counselling, and education reimbursements?
			Are there structured, autonomous work groups such as "quality circles" or "quality and productivity involvement teams"?
			Are PIQE achievements recognized with an award system based on meaningful performance measures?
			Are there any programs to either involve subcontractors as full members of the quality and productivity improvement teams or to help them develop their own quality and productivity improvement programs?

## Appendix B Preparation of Application Report

#### I. General

- A. Each candidate is encouraged to submit sufficient information so that a complete and thorough evaluation can be made by the Evaluation Committee. The application should be concise and factual and should contain, as a minimum, descriptive information to allow judgment of the overall commitment and accomplishments for the previous three calendar years and, where applicable, projections for future years. The report must follow the criteria sequence as outlined in Section VI, Evaluation Criteria Elements, with emphasis on graphical and tabular data to enhance evaluation and analysis.
- B. Information requested herein must be furnished fully and completely in compliance with instructions. The information requested and the manner of submission are essential to permit prompt evaluation of applications on a fair and uniform basis. If a criteria element does not apply, it must be addressed by indicating "not applicable" and reason(s) must be stated. However, evaluators may disallow this claim if it is determined that the element should be applicable.
- C. Thirty (30) copies of the Application Report shall be submitted to the American Society for Quality Control.

#### II. Application Report Preparation

Report sheets must be on standard size (8-1/2 by 11 inch) paper, with standard elite type or equivalent. Sheets may be printed on both sides. Application Reports shall be limited to a maximum 30 single-sided pages. Dividers, covers, tab separators, title pages, and table of contents are not counted in the page limitation.

#### III. Application Report Format

Reports shall contain the following sections in the order shown:

- A. Introduction (to include the following):
  - 1.0 Name and address of applicant
  - 2.0 Name, title, and telephone number of highest ranking member of management
  - 3.0 Name, title, and telephone number of award report contact
  - 4.0 Number of full-time on-site employees and the percentage engaged in NASA business
  - 5.0 Product/service furnished on all NASA contract(s)
  - 6.0 List NASA contract(s) (by number) for the last three years with the dollars billed per year on each, subcontractors list prime contractor and purchase order numbers and amounts
- B. Applicant Products/Services supporting NASA contracts and background of type of NASA support
- C. Reporting of Accomplishments (see and follow Section VI, Evaluation Criteria Elements)
  - 1.0 Performance Achievements and Improvements
  - 2.0 Productivity Improvement and Quality Enhancement Process Attainments

Where applicable, tables, graphs, and charts should be the preferred method of documentation to assist the Evaluation Committee in visualizing accomplishments.

D. Summary of why the applicant deserves the award (include quantitative as well as qualitative data, as appropriate to describe perceived strengths and highlight exceptional achievements).

#### Appendix C Milestone Schedule

I. Award application guidelines available.

September 15, 1988

II. Candidate submits nomination information (8-page maximum) to American Society for Quality Control (ASQC) with brief statement of eligibility compliance.

November 15, 1988

- III. Evaluation Committee completes review of candidate. This includes review by field installation(s) and prime contractor(s) if candidate is subcontractor.

  Candidate notified of Committee's decision.

  December 15, 1988
- IV. Successful applicant submits Application Report (30-page maximum) to ASQC.

March 1, 1989

V. Evaluation Committee reviews Application Report to determine whether candidate's organizational commitment and accomplishments meet the award standards. Finalists are selected.

May 1, 1989

VI. On-site validation team completes May and June finalists visits to validate and rate commitment and accomplishments.

July 1, 1989

VII. Finalists ceremony held at NASA Headquarters.

September, 1989

VIII. Selection of annual award recipient(s) made by NASA Productivity Steering Committee based on review of the Findings Report and recommendations of the Evaluation Committee.

September, 1989

IX. Announcement of award recipient(s).

October, 1989

X. Presentation of award by NASA Administrator in special ceremony held at recipient's location.

October-November, 1989

#### For additional details, contact:

Craig Henry American Society for Quality Control 310 West Wisconsin Avenue Milwaukee, WI 53203 (414) 272-8575

#### **OR**

Tony Diamond
NASA Quality and Productivity Improvement
Programs Office
NASA Headquarters—Code QB
Washington, DC 20546
(202) 453-8415